

Date: Tuesday, 3/20/2007 1:47:11 PM
 User: Kim Johnston

Process Sheet

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : 212/205 HIGH FED X-TUBE ASSEMBLY
 Job Number : 31353
 Estimate Number : 10254
 P.O. Number : *N/A*
 This Issue : 3/20/2007 S.O. No. : *N/A*
 Prsht Rev. : NC
 First Issue : *N/A* Type : LANDING GEAR
 Previous Run : 31352
 Part Number : D212664101
 Drawing Number : D212-664-141 REV *SC*
 Project Number : *N/A*
 Drawing Revision : *SC*
 Material : *PM*
 Due Date : 4/15/2007 Qty: 1 Um: Each
 Written By :
 Checked & Approved By : *07.03.20*
 Comment : Est Rev: E 04.02.16 Reformat KJ/DS
 Est Rev: F 06-03-29 Remove Coments on Pick List JLM

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 DC DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and create labels as per PPP D212-664-101CHG002

2.0 D6005128 Crosstube material



Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty Part number Description Batch

1 -D6005-128 Crosstube 26549

Check OD = 2.750"; ID = 2.000"

MS 07/04/05 1

3.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Fill tube with sand & install plugs DT8534 on both ends as per Folio FA113

2-Turn first side as per Folio FA113

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141.

3/F
 MS 07/04/05 1

4.0 QC1 INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

MS 07/04/05 1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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Job Number: 31353

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn second side as per Folio FA113

2-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141.

JP 07/04/08

6.0

QC1

INSPECT ALL DIM TO DIM SHEET



Comment: INSPECT ALL DIM TO DIM SHEET

MS 07/04/08

7.0

QC8

SECOND CHECK



Comment: SECOND CHECK

En 07/04/09

8.0

MORI SEIKI

MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Remove sand and plugs

2-Scribe part # and batch # using vibrating stylus as per Dwg D212-664-141

JP 07/04/08

9.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1-Polish entire outside surface of crosstube

JB 7-4-10

10.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

DP

7-4-10

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

JB 7-4-10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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QA: N/C Closed: _____ Date: _____

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Process Sheet

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Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31353

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

12.0

QC15

DIMENSIONAL CHECK OF X-TUBES

Comment: DIMENSIONAL CHECK OF X-TUBES

13.0

BENDING

BENDING MACHINE

Comment: BENDING MACHINE

Bend tube as per Dwg D212-664-141 using CNC bender program 212-fw and Folio FT015

14.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1

Comment: LANDING GEAR RESOURCE 1

1-Drill pilot holes in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549

2-Ream hole to finish size in tube as per Dwg D212-664-141 using drill Jig DT8548 & DT8549. Check dimensions between holes, both sides on both cuffs, to ensure alignment with saddle holes.

3-Deburr & Inspect for surface damage. Repair damage within limits as per Dwg D212-664-141

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1 within 24 hours of bending and drilling

16.0

QC5

INSPECT WORK TO CURRENT STEP

Comment: INSPECT WORK TO CURRENT STEP

17.0

OUTSIDE SERVICE

OUTSIDE SERVICES

Comment: Sub-Contracting OUTSIDE SERVICES

Liquid Penetrant Inspection as per QSI 038

Issue P/O: 3878

LPI as per ASTM 1417 Level 2

Attach copy of NDT results to work order

18.0

PACKAGING 1

PACKAGING RESOURCE #1

Comment: PACKAGING RESOURCE #1

Inspect for transit damage Ensure copy of NDT results attached to work order.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31353

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

QC6

DIMENSIONAL CHECK



206-12 @



Comment: Inspect for damage & ensure results are as per Dwg D212-664-141

20.0

SPRAY PAINTING

SPRAY PAINTING



Comment: SPRAY PAINTING

1-Prime inside and outside crosstube as per QSI 005 4.2

2-Paint outside crosstube with White Imron as per QSI 005 4.2

} RT 07-06-13

21.0

QC14

Inspect Spray Paint



206-14 @



Comment: Inspect Spray Paint

Then, Wrap in plastic bag to protect from scratches

22.0

~~D2856600~~

Abrasion Strip



Comment: Qty.: 0.7090 f(s)/Unit Total: 0.7090 f(s)

Pick:

Qty Part number Description Batch

2 D2856 600-851 Abrasion Strip

A/R

Magnabond M104723

Time 200pm

ML 070710

23.0

D28931

Support



Comment: Qty.: 2.0000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part number Description Batch

2 D2893-1 Support

~~25524~~

29524

RT 07-07-10

24.0

MS219204

Clamp(per MIL-DTL-8783C)



Comment: Qty.: 4.0000 Each(s)/Unit Total: 4.0000 Each(s)

Pick:

Qty Part number Description Batch

4 MS21920-24 Clamp

103897

~~103955~~

ML 070711

RT 07-07-10

-25
07-07-11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
02.02.11	24.0	AS PER D212-664-1411 CHANGE PART FROM MS21920-24 TO MS21920-25				<i>[Signature]</i>	

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/20/2007 1:47:12 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31353

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

LANDING GEAR 1

LANDING GEAR RESOURCE 1



Comment: LANDING GEAR RESOURCE 1

1- Install abrasion strips as per QSI 035 using DT9581

1- Apply magnabond to supports.

2- Install supports and clamps as per Dwg D212-664-141. Torque clamps to 80-100 in lb.

ml 07 07 10

26.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

En 07/07/11

(41)

27.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Pick Packing Kit

28.0

D34281

Placard



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

PLACARD

Batch: B26249

29.0

AN635A

BOLT



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: M103446

30.0

AN636A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Bolt

Batch: M102929

31.0

AN960JD616

Washer



Comment: Qty.: 18.0000 Each(s)/Unit Total : 18.0000 Each(s)

Washer

Batch: M10364

07/07/11

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 01/07/11
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 3/20/2007 1:47:12 PM
User: Kim Johnston

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: 212/205 HIGH FED X-TUBE ASSEMBLY

Job Number: 31353

Part Number: D212664101

Job Number:



Seq. #:

Machine Or Operation:

Description :

32.0

MS21042L6

Nut



Comment: Qty.: 6.0000 Each(s)/Unit Total : 6.0000 Each(s)

Nut

Batch: 1718660-

Handwritten: 1718660- 07/07/11

33.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

Handwritten: 07/11 07-07-11

34.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Identify and pack for shipping as per PPP D212-664-101

Handwritten: Rev C 7/7/11 SP

35.0

QC21

FINAL INSPECTION/W/O RELEASE



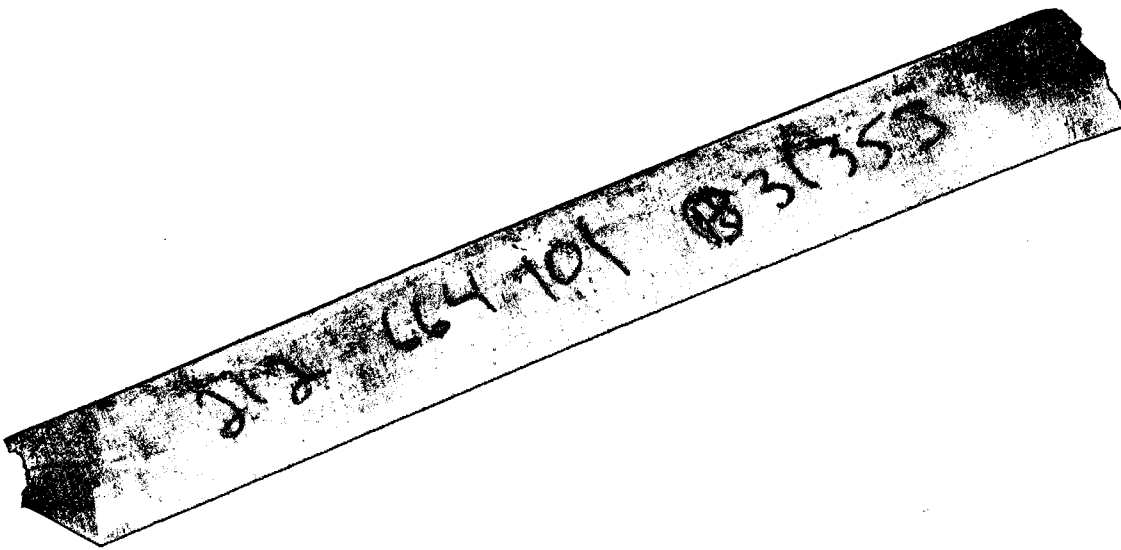
Comment: FINAL INSPECTION/W/O RELEASE

Handwritten: 07/02/11

Job Completion



Handwritten: 07-07-11



W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order:	31353
Description: Crosstube Assembly (205/212/412 High Fwd)	Part Number:	D212-664-141
Inspection Dwg: D212-664-141 Rev: B		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article
 ☐ Prototype

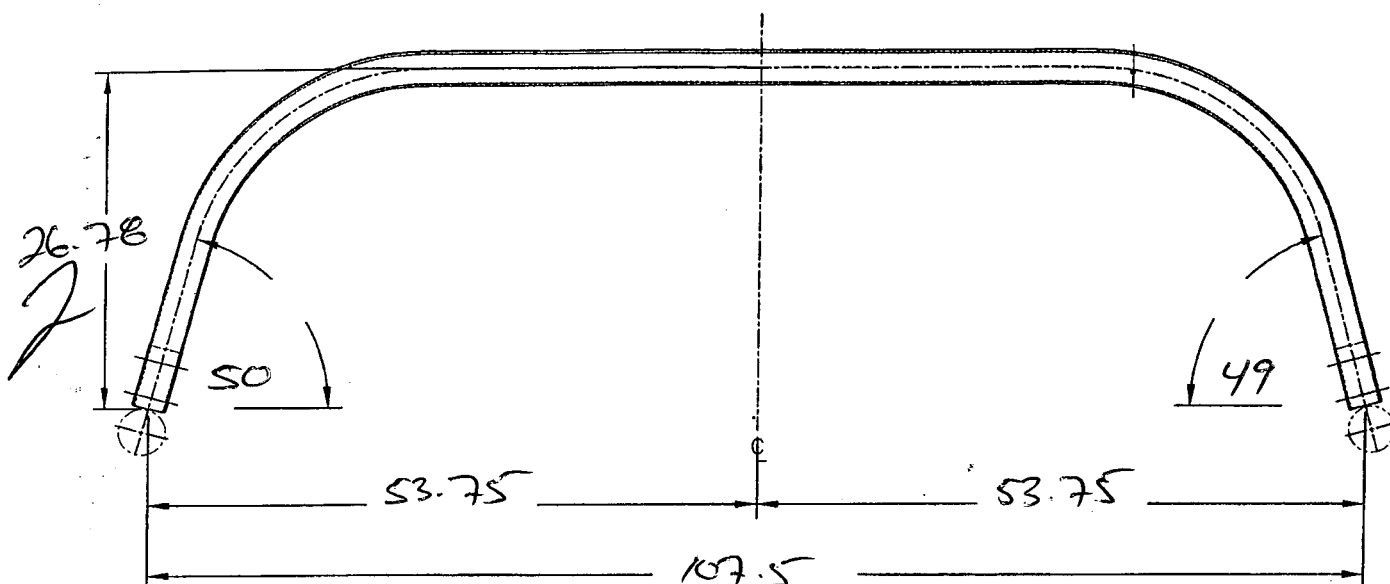
Inspection Sheet Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
SIDE A	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	2.740	+0.005/-0.000	2.742 ✓			
	5.097	+/-0.030	5.097 ✓			
	2.304	+0.005/-0.000	2.304 ✓			
	2.340	+0.005/-0.000	2.342 ✓			
	2.398	+0.005/-0.000	2.399 ✓			
	2.448	+0.005/-0.000	2.449 ✓			
	2.498	+0.005/-0.000	2.499 ✓			
	2.549	+0.005/-0.000	2.549 ✓			
	2.599	+0.005/-0.000	2.600 ✓			
	2.671	+0.005/-0.000	2.672 ✓			
	2.701	+0.005/-0.000	2.702 ✓			
SIDE B	0.200	+/-0.010	.200 ✓			
	R0.063	+/-0.010	.063 ✓			
	2.740	+0.005/-0.000	2.744 ✓			
	5.097	+/-0.030	5.098 ✓			
	2.304	+0.005/-0.000	2.306 ✓			
	2.340	+0.005/-0.000	2.342 ✓			
	2.398	+0.005/-0.000	2.400 ✓			
	2.448	+0.005/-0.000	2.450 ✓			
	2.498	+0.005/-0.000	2.500 ✓			
	2.549	+0.005/-0.000	2.550 ✓			
	2.599	+0.005/-0.000	2.600 ✓			
	2.671	+0.005/-0.000	2.673 ✓			
	2.701	+0.005/-0.000	2.703 ✓			
	126.51	+/-0.020	126.51 ✓			

Measured by:	MS/JR	Audited by:	En	Prototype Approval:	N/A
Date:	07/04/05	Date:	07/04/05	Date:	N/A

Rev	Date	Change	Revised by	Approved
A	05.04.27	New Issue (P/O D412-664-101)	KJ/JLM	
B	06.03.15	Tolerance revised for 5.097 per Dwg Rev update	KJ/JLM	

DART AEROSPACE LTD		Work Order:	31353
Description: Crosstube High Fwd (205/212/412)		Part Number:	D212-664-101
Inspection Dwg: D212-664-141 Rev: B		Page 1 of 1	

Required Dimension	Min	Max
Height	26.86	26.98
1/2 Span	53.66	53.78
Angle	49	52
Total Span	107.32	107.56



Comments
height is even. 2

QC15 Inspection	2
Date	07.05.03

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	2



DESIGN PH	DRAWN BY PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D212-664-141	REV. B SHEET 1 OF 3
DATE 05.02.04		TITLE XTUBE ASS'Y (205/212/412 HI FWD) NTS	
A	00.12.12	NEW ISSUE	
B	05.02.04	ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	

RELEASED
05.06.07 *[Signature]*

UNDER REVIEW

~~07.03.03 PH~~

REVISE TO ADD
MAGNETIC AND LUBRICATION

Qty	Part Number	Description
X	D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
1	D6005-128	CROSSTUBE
2	D2893-1	SUPPORT
2	D2856-600-851	ABRASION STRIP
4	MS21920-24	CLAMP

GENERAL NOTES:

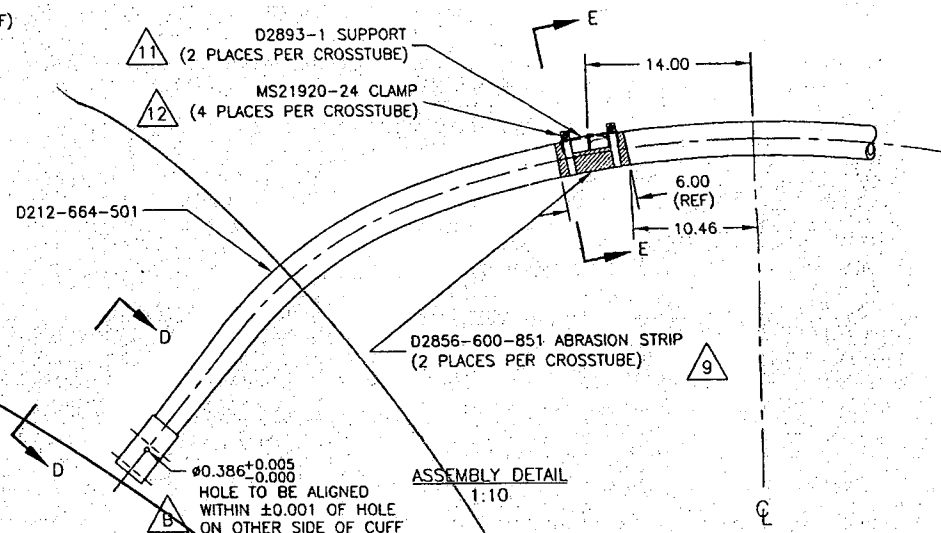
- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6005-128
FINISHED LENGTH = 126.51 ± 0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS
- 9) INSTALL D2856-600-851 ABRASION STRIP WITH A 0.13 (REF) GAP ON BOTTOM SIDE OF CROSSTUBE, CENTERED OPPOSITE D2893-1 SUPPORT, PER QSI 035.
- 10) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 11) IT IS OPTIONAL TO SEAL EDGES OF SUPPORTS USING SIKAFLEX-241/291 SEALANT.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. **31353**

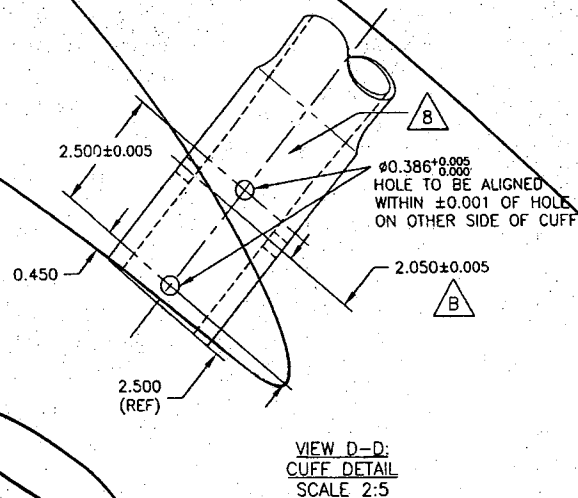
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RELEASED
05-06-04



PH 07.03.20
UNDER REVIEW
~~07.03.20 PH~~
revise to add
ingebund and cashin



MS21920-24
CLAMP (REF)

D2893-1
SUPPORT (REF)

D2836-600-851
ABRASION STRIP (REF)

9

SECTION E-E
SCALE 2:5

2.549
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WORK ORDER
NO. 31353

0906-19

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DRAWN BY	PH
APPROVED	

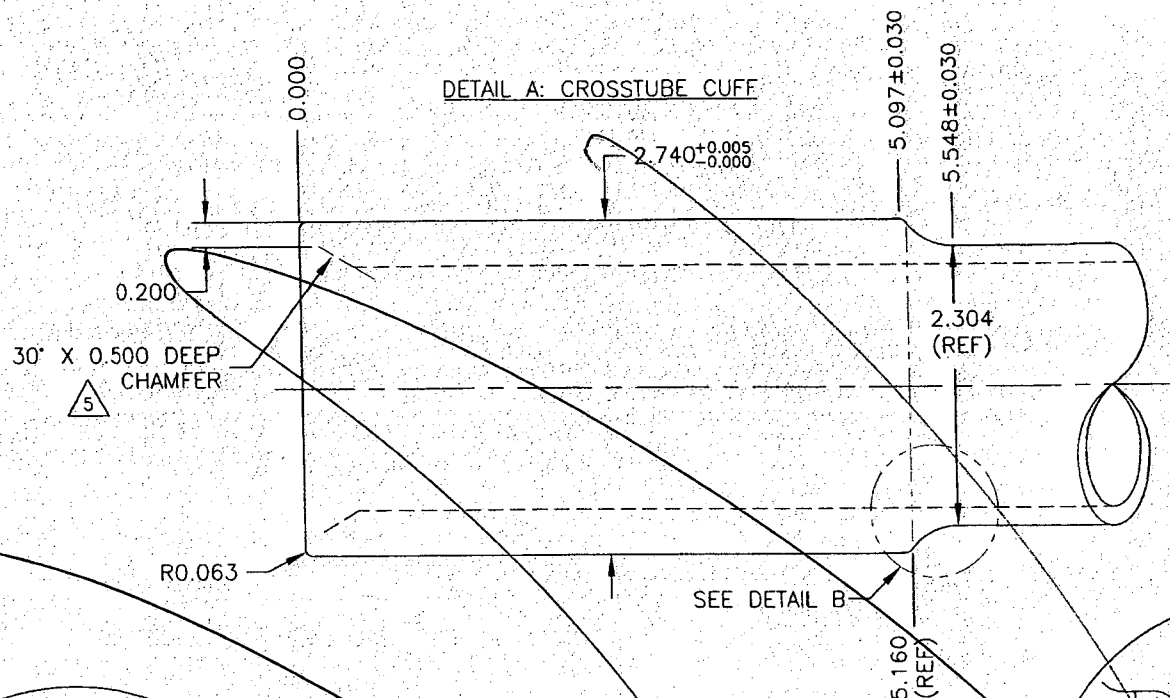
DRAWING NO.
0212-664-141

REV. 8
SHEET 2 OF 3

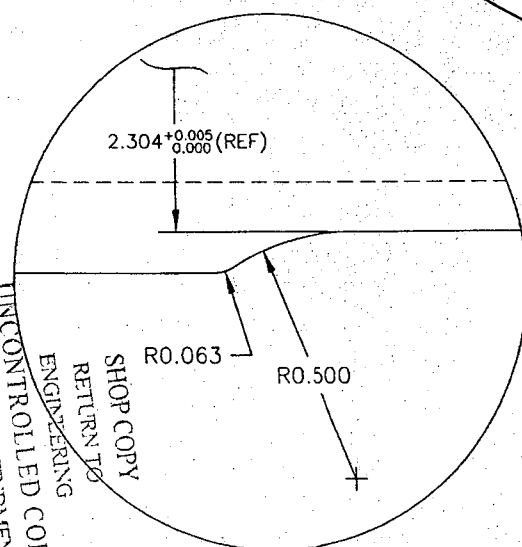
TITLE	SCALE
XTUBE ASS'Y (205/212/412 HI FWD)	1:10



RELEASED
05 06 07 08

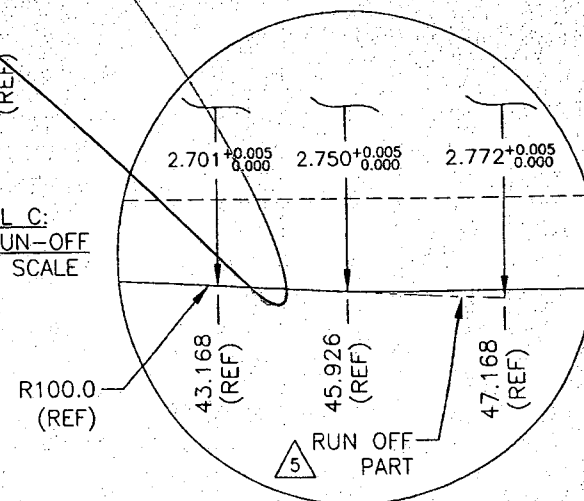


PH 07.08.20
UNDER REVIEW
07.03.08 PH
Review to add
magnesium and cushion



DETAIL B: CUFF
TRANSITION
SCALE 4:1

DETAIL C:
TAPER RUN-OFF
NOT TO SCALE



NO. 31353
WORK ORDER
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DESIGN	PH	DRAWN BY	PH	DART	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED	#	APPROVED	#	DRAWING NO. D212-664-141	REV. 8 SHEET 3 OF 3
DATE	05.02.04	TITLE	XTUBE ASS'Y (205/212/412 HI FWD)	SCALE	1:1



HeathAir

INTERNATIONAL (1991) INC.

681 Ave. Lepine, Dorval, Québec H9P 1G3
Tél.: (514) 636-1000 • Fax: (514) 636-0031

W.O. N° 36547

A.M.O. Number: 46/90

NON-DESTRUCTIVE TESTING REPORT

AIRCRAFT / COMPONENT INFORMATION

REGISTRATION:

MODEL/TYPE:

SERIAL NUMBER:

TOTAL HR/LDG:

OPERATED BY:

BASED AT:

INSPECTION REQUIREMENTS

Carry out FPI of (6) cross tubes (external surface) as per ASTM E-1417-05 and the Dart QSI 038, Section 4.1.1 (on file at client) - parts delivered to HeathAir.

Qty (5) P/N D212-664-101 S/N's B31354, B31355, B31353, B31357 and B31352.

Qty (1) P/N D212-664-201 S/N B31361.

☐ RADIOGRAPHY

☐ ULTRASONIC

☒ PENETRANT

☐ MAGNETIC PARTICLE

☐ EDDY CURRENT

INSPECTION REPORT

Fluorescent penetrant inspection was performed in accordance with the above requirements on (6) cross tubes.

Note: A Level 3 penetrant was substituted for the requested Level 2 (3 is more sensitive) Ardrex 970P25E Batch #04B503.

(6) cross tubes inspected. (6) PASSED / (0) FAILED.

THE MAINTENANCE DESCRIBED ABOVE HAS BEEN PERFORMED IN ACCORDANCE WITH
THE APPLICABLE STANDARDS OF AIRWORTHINESS

INSPECTED BY:

DATE June 1, 2007

INSPECTION
STAMP(S)

CUSTOMER INFORMATION

CUSTOMER: Dart Aerospace

P.O. NUMBER

PO 00003878

ADDRESS:

CONTACT NAME: Linda Lacelle

LABOUR

@

\$

MATERIALS

@

TRAVEL EXPENSES

@

GST

HOTEL EXPENSES

@

PST

INVOICE NO.

TOTAL \$

WHITE COPY - INSPECTION FILE • YELLOW COPY - CUSTOMER • PINK COPY - ACCOUNTANT



RECEIVED

RELEASED

07.04.24

DESIGN	PH	DRAWN BY	PH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	GP	APPROVED	[Signature]	DRAWING NO.	REV. C
				D212-664-141	SHEET 1 OF 3
DATE				TITLE	SCALE
07.03.08				XTUBE ASS'Y (205/212/412 HI FWD)	NTS
A	00.12.12			NEW ISSUE	
B	05.02.04			ADD HOLES FOR COMPATABILITY WITH BHT/AA SKIDTUBES	
C	07.03.08			REMOVE -851 ABRASION STRIP; ADD MAGNOBOND 6398, CUSHION, REVERSE CLAMPS	

Qty	Part Number	Description
X	D212-664-141	CROSSTUBE ASSEMBLY (205/212/412 HIGH FWD)
1	D6005-128	CROSSTUBE
2	D2893-1	SUPPORT
4	D3595-063-450	RUBBER CUSHION
4	MS21920-25	CLAMP (OR MS21920-26)
A/R	MAGNOBOND 6398	ROCKWELL SPECIFICATION RBO-120-023 ADHESIVE (TEXTRON/BELL SPEC. 299-947-100, TYPE II, CLASS 2 ADHESIVE)

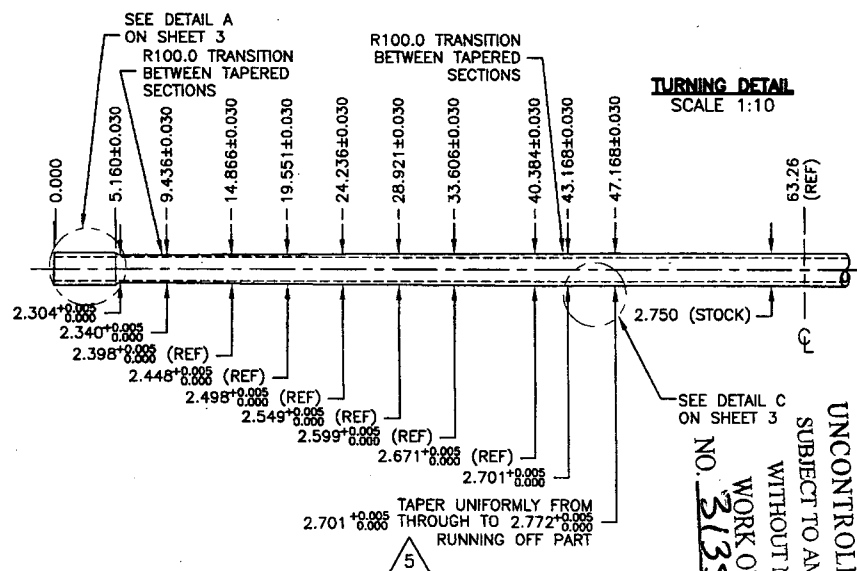
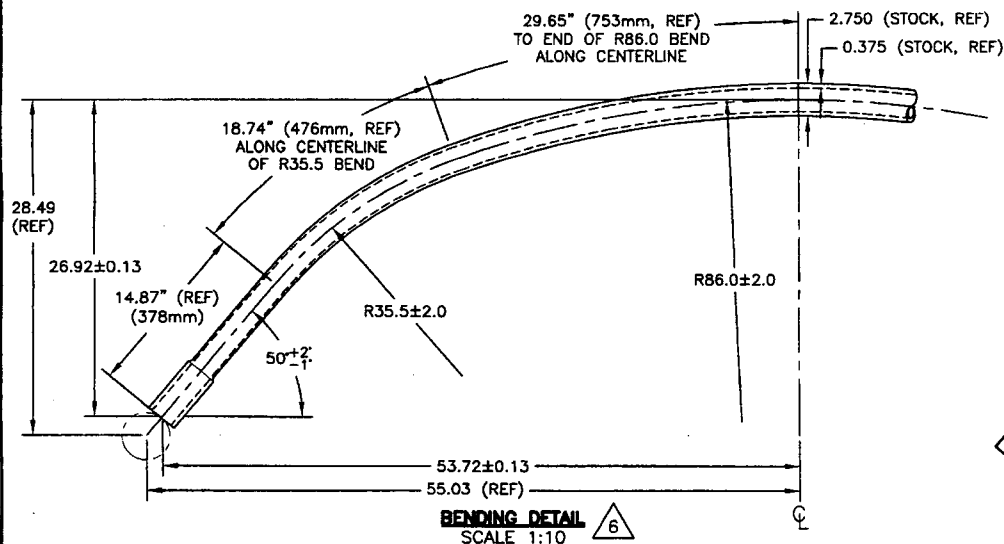
GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED.
- 2) MATERIAL: MANUFACTURED FROM D6005-128
FINISHED LENGTH = 126.51±0.020
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
PRIME INSIDE AND OUTSIDE PER DART QSI 005 4.2
PAINT OUTSIDE PER DART QSI 005 4.2
- 4) PART IS SYMMETRIC ABOUT CENTERLINE.
- 5) RUN-OFF PART. BLEND OUT EDGE LONGITUDINALLY, TRANSITION SHOULD BE SMOOTH.
- 6) BEND PROGRESSIVELY WITH A MINIMUM OF 3 PASSES. MAXIMUM TUBE FLATTENING DUE TO BENDING IS 6% BASED ON O.D.
- 7) LIQUID PENETRANT INSPECT OUTSIDE SURFACE OF CROSSTUBE PER QSI 038.
- 8) SCRIBE DART PART NUMBER AND BATCH NUMBER IN THIS AREA WITH VIBRATING STYLUS.
- 9) INSTALL D2893-1 SUPPORT USING 0.03" TO 0.06" THICK LAYER OF MAGNOBOND 6398 PER QSI 015. LET CURE FOR 12 HOURS AFTER INSTALLATION AND PRIOR TO PACKAGING.
- 10) INSTALL MS21920-25 CLAMPS (OR -26) WITH D3595-063-450 RUBBER CUSHIONS TO SECURE THE D2893-1 SUPPORT ON TOP SIDE OF THE CROSSTUBE. ENSURE CLAMPS ARE OPPOSITE OF CROSSTUBE SUPPORT
- 11) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 12) TORQUE CLAMPS 80 TO 100 IN-LB. ENSURE AT LEAST 1.5 THREADS SHOWING IN SAFETY AND THAT NUT HAS NOT BOTTOMED-OUT AFTER TORQUING.

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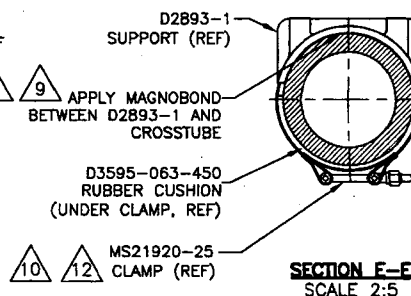
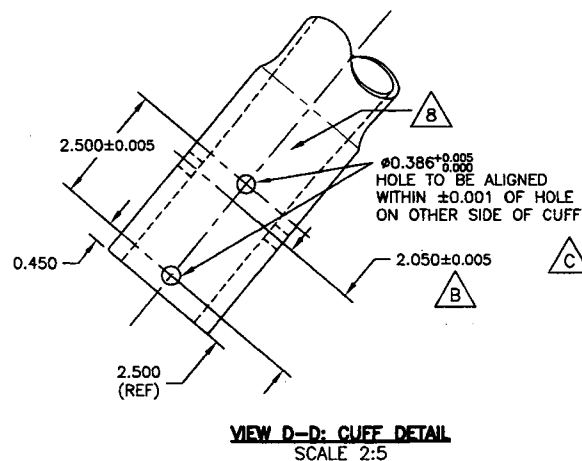
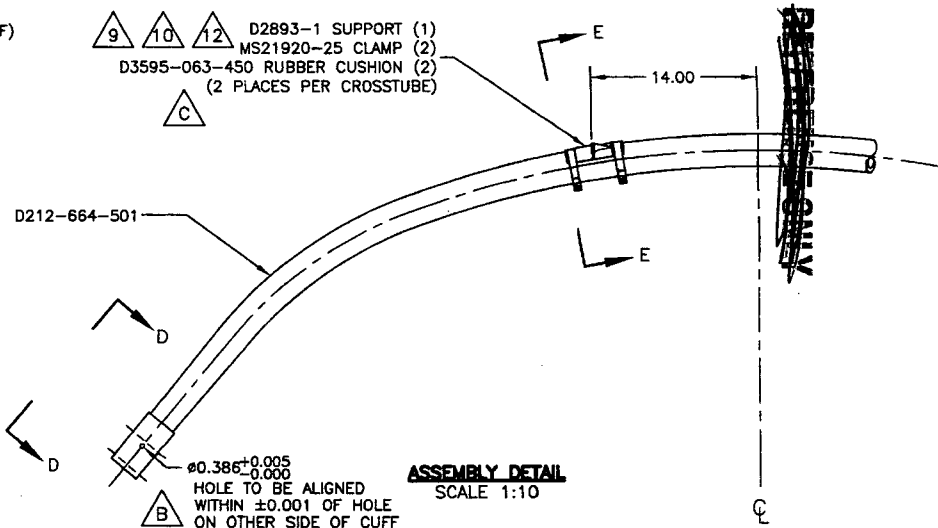
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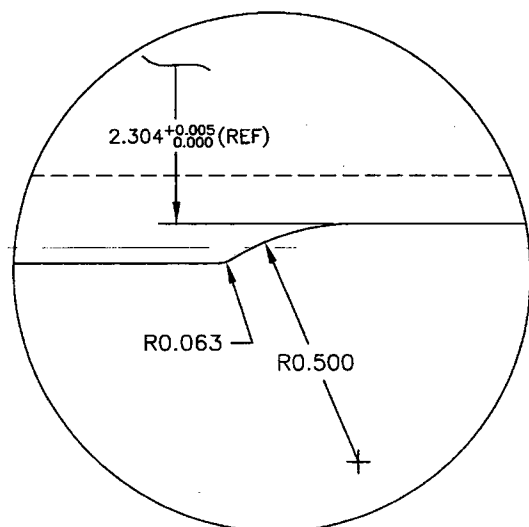
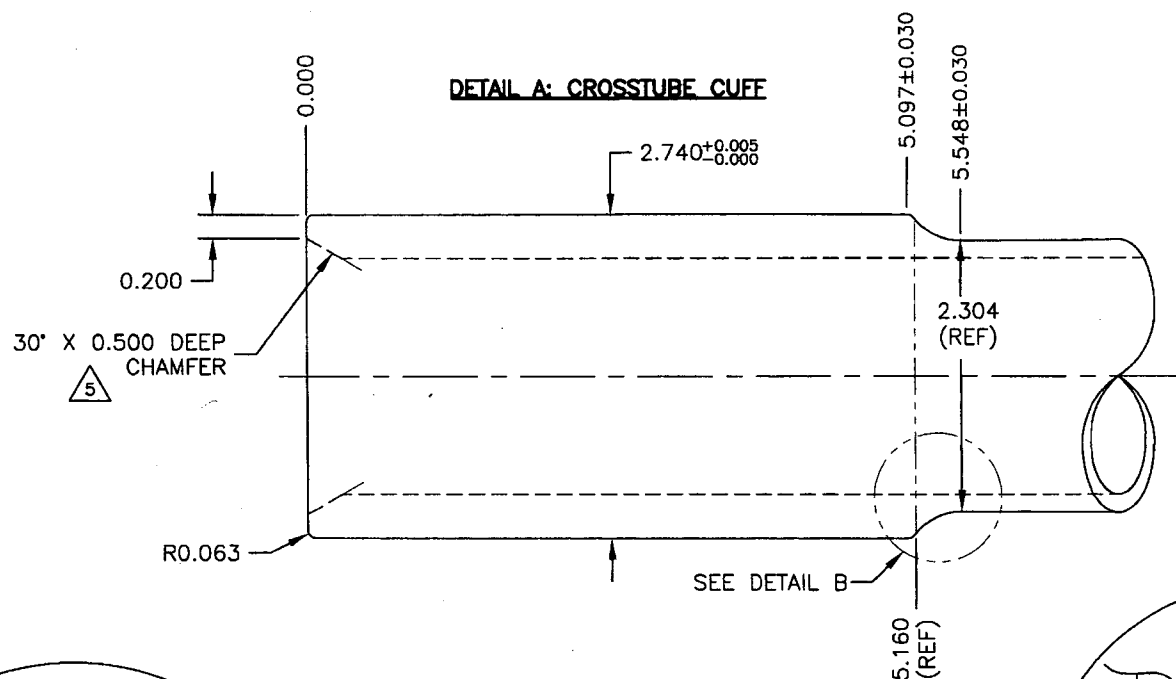
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DATE	07.03.08			D212-664-141	SHEET 2 OF 3
				TITLE	SCALE
				XTUBE ASS'Y (205/212/412 HI FWD)	1:10

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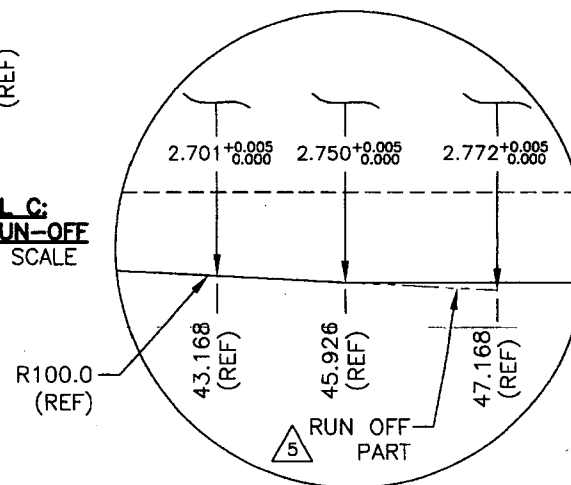
DETAIL A: CROSSTUBE CUFF



DETAIL B: CUFF TRANSITION SCALE 4:1

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DETAIL C: TAPER RUN-OFF NOT TO SCALE



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